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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|----------------------|------------------------|------------------|
| 10/656,686 | 09/04/2003 | Thomas J. Friedman | SP03-107 (WJT003-0045) | 8554 |
| 22928 | 7590 | 06/14/2005 | EXAMINER | |
| CORNING INCORPORATED | | | IVEY, ELIZABETH D | |
| SP-TI-3-1 | | | ART UNIT | |
| CORNING, NY 14831 | | | PAPER NUMBER | |

1775

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,686

Applicant(s)

FRIEDMAN ET AL.

Examiner

Elizabeth Ivey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10 and 17-21 and 22-24, drawn to a glass sheet, a container for holding a plurality of glass sheets and a material, classified in class 428, subclass 34.1.
- II. Claims 11-16, drawn to a method for packaging glass substrates, classified in class 53, subclass 396.

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the method of packaging of glass substrates can be used to package glass substrates not having a smooth layer of polymer film and a rough layer of fabric.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Thomas Beall on May 26, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-10, 17-21 and 22-24. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 11-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

Claim 20 is objected to because of the following informalities: Claim 20 on page 21 recites on lines 20- 21 “polyethylene film other flexible polymer” and on lines 22-23 “polyethylene film other polyolefin film”. In both instances the word “or” is missing between the words “film” and “other”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application 0311425 A2 to Barger.

Regarding claims 1-2 and 6, Barger discloses masking of both sides of a polycarbonate film with non-embossed, removable, polyethylene film (column 1 lines 21-28) and further discloses that these films may also be applied to glass surfaces (column 4 lines 35-37) as a protective coating during shipping (column 1 lines 6-11). Barger also discloses a one sided matte embossed film which is applied to the same surfaces in order to mechanically prevent slip (column 4 lines 21-22). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize the embossed film as either the top or as both top and bottom surface coatings in order to protect and prevent mechanical slip of glass sheets during shipping.

Regarding claim 7, Barger discloses a film with a random matte, which would result in the embossed features on the top film having different positions from the embossed features on the bottom film, rather than a patterned matte so as to create air entrapment without the film layers adhering to one another (column 4 lines 55-61).

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Regarding Claims 3, and 8, Barger discloses a multi-layer film comprising a smooth layer and a rough embossed layer (column 3 lines 33-35); which may be applied as the top film.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application 0311425 A2 to Barger as applied to claims 1-2 above, in view of U.S. Patent 4,906,517 to Akao et al. Barger discloses a multilayer structure that has a smooth layer and a rough layer (column 3 lines 24-37), but does not disclose a smooth layer with a modulus of stiffness lower than that of the rough layer. Akao discloses a multilayer structure film used as a protective packaging film. Said film may comprise a nylon, polyester, polyethylene, or polypropylene resin and the second layer may comprise a film of thermoplastic resin such as nylon, polyester, polypropylene, high density polyethylene resin or of paper or non-woven fabric. Akao discloses that these materials impart "light shielding, moistureproofness, gas barrier and physical strength properties in the packaging" which is beneficial for storage and shipment of liquid crystal display glass, and when used in layers, prevent curling of the film (column 1 lines 13-40). It would therefore have been obvious to one having ordinary skill in the art at the time of the invention to utilize the materials and layers of Akao to create the embossed layer of Barger by embossing the top layer of the Akao film. Absent any definition from applicant of modulus of stiffness, examiner interprets modulus of stiffness as modulus of elasticity. As such, the various materials disclosed in Akao may be utilized as the respective smooth and rough layers for the smooth layer to have a lower modulus of elasticity than the rough layer.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application 0311425 A2 to Barger as applied to claims 1 and 6 above, in view of U.S. Patent 4,906,517 to Akao et al. Barger discloses a multilayer structure that has a smooth layer and a rough layer but does not disclose a smooth layer with a modulus of stiffness lower than that of the rough layer. Akao discloses a multilayer structure film used as a protective packaging film. Said film may comprise a nylon, polyester, polyethylene, or polypropylene resin and the second layer may comprise a film of thermoplastic resin such as nylon, polyester, polypropylene, high density polyethylene resin or of paper or non-woven fabric. Akao discloses that these materials impart "light shielding, moistureproofness, gas barrier and physical strength properties in the packaging" which is beneficial for storage and shipment of liquid crystal display glass, and when used in layers, prevent curling of the film (column 1 lines 13-40). It would, therefore, have been obvious to one having ordinary skill in the art at the time of the invention to utilize the materials and layers of Akao to create the embossed layer of Barger by embossing the top layer of the Akao film. Absent any definition from applicant of modulus of stiffness, examiner interprets modulus of stiffness as modulus of elasticity. As such, the various materials disclosed in Akao may be utilized as the respective smooth and rough layers for the smooth layer to have a lower modulus of elasticity than the rough layer.

Claims 17-21, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,556,529 to Farrell in view of European Patent Application 0311425 A2 to Barger.

Regarding claims 17-21, Farrell discloses a protecting container for fragile and breakable articles such as glass, and particularly a shipping carton for glass sheets; which would include glass sheets used in a liquid crystal display (column 1 lines 1-4). Farrell discloses the carton to be preferably of rectangular formation and composed of four side walls, a top and a bottom (column 2 lines 24-29) and glass sheets mounted next to each other within the carton (column 2 line 41-44 and figure 3) and discloses a method of protecting the glass sheets supporting them from breakage or damage (column 2 lines 54-55 and column 3 line 1). Farrell does not disclose removable protective films on the top and bottom of the glass sheets. Barger discloses masking of both sides of a polycarbonate film with non-embossed, removable, polyethylene film (column 1 lines 21-28); which is a flexible polymer film material as well as a polyolefin and further discloses that these films may also be applied to glass surfaces (column 4 lines 35-37) as a protective coating during shipping (column 1 lines 6-11). Barger also discloses a multilayered film comprising a film matte embossed on one side, which may be applied to the glass sheet surfaces in order to mechanically prevent slip (column 4 lines 21-22). It would, therefore, have been obvious to one having ordinary skill in the art at the time of the invention to utilize the protective films arranging the randomly embossed film as the top surface coating of the glass sheet or alternatively as the films on both the top and bottom surfaces of the glass sheet in order to protect and to prevent mechanical slip of the glass sheets during shipping.

Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application 0311425 A2 to Barger.

Regarding claims 22 and 23, Barger discloses masking of both sides of a polycarbonate film with non-embossed, removable, polyethylene film (column 1 lines 21-28) to form a protective coating for use during shipping (column 1 lines 6-11). Barger also discloses a one sided matte embossed film which is applied to the same surfaces in order to mechanically prevent slip (column 4 lines 21-22). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize the embossed film as either the top or as both top and bottom surface films in order to protect and mechanically prevent slip of glass sheets during transportation or shipping.

Regarding claim 24, Barger discloses a film with a random matte, which would result in the embossed features on the top film having different positions from the embossed features on the bottom film, rather than a patterned matte so as to create air entrapment without the film layers adhering to one another (column 4 lines 55-61).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent to Johnson discloses a nonwoven polyethylene fabric made from embossed high density polyethylene. The CRC Handbook of Chemistry and Physics 61st edition 1980-1981 pages C-735 - C-745 discloses properties of commercial plastics.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Ivey whose telephone number is (571)272-8432. The examiner can normally be reached on 7:00- 4:30 M-Th and 7:00-3:30 alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571)272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth D. Ivey



DEBORAH JONES
SUPERVISORY PATENT EXAMINER